# Science and Technical Support Section Work Activities Overview

The Science Section work activities are structured in the following areas:



#### **Aquatic Ecosystem:**

The levels of contaminants, pathogens and nutrients in the aquatic environment, and their impact on sediments, aquatic species, human uses and human health



#### **Ecology:**

Distribution and abundance of species and communities and the interaction between organisms and their environment



#### **Ecohydrology:**

The status and health of lakes, ponds, rivers, streams, wetlands and groundwater; determination of river and stream flows; including groundwater levels; and, their ability to sustain people, fish, wildlife and natural functions

## The Science Section provides the following services:

- Long-term monitoring of environmental conditions to determine status, changed conditions and trends;
- Pre-construction, in-construction, and postconstruction project effectiveness monitoring;
- Site characterization to support operational needs;
  - Input to, and support of promulgation, amendment and implementation of environmental laws, policies, regulations and plans;
    - Support for obtaining construction permits or conducting environmental reviews;
    - Modeling of hydrology, hydrogeology, water quality, chemical mass balance and food web bioaccumulation:
    - Evaluation of environmental assessments and other information for projects by other organizations;
- Inform, advise, review and support implementation of regional plans and policies;
- · Provide public educational services;
  - Develop, operate, and maintain computer applications for the storage, analysis, and distribution of environmental data;
    - Scientific literature reviews and synthesis;
    - Long-term monitoring of receiving waters of wastewater treatment plant and CSO outfall discharges in support of NPDES permits (National Pollution Discharge Elimination System);



### Habitat and Watershed Processes:

The status, protection, restoration, and sustainability of freshwater, estuary, nearshore, marine and upland habitat

- Monitoring for stormwater NPDES permit procurement and permit compliance; and
- Other regulatory compliance monitoring; e.g., swimming beaches, Urban Planned Developments, the **Critical Areas Ordinance**;
- Toxics and contaminants monitoring and assessments.

#### **About King County's Sci FYI**

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